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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,361	08/01/2001	Lawrence R. Conrath	12166-3	4267

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EXAMINER

CHANNAVAJALA, SRIRAMA T

ART UNIT	PAPER NUMBER
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2166

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/920,361	CONRATH, LAWRENCE R.	
	Examiner	Art Unit	
	Srirama Channavajjala	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1-13,18-23 are pending in this application.
2. Examiner acknowledges applicant's amendment filed on 3/16/2006.
3. Claims 1-2,4-12 have been amended [3/16/2006].
4. Claims 18-23 have been added [3/16/2006].
5. Examiner acknowledges applicant **elected Group I claims 1-13** filed on 8/17/05, further examiner treats Group II claims 14-17 have been withdrawn from this application.

Drawings

6. Examiner acknowledges and approved amendment to the drawing fig 7. Applicant is hereby required to submit "formal drawings" in response to this office action.
7. The drawings filed on 08/01/2001 are acceptable for examination purpose. It is however noted that **fig 8** is not related to elected Group-I claims 1-13.

Information Disclosure Statement

8. The information disclosure statement PTO-1449 filed on 02 Jan 2002, and 02 Jul 2002 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy is enclosed with this Office Action.

Priority

9. Applicant's claim for domestic priority under 35 U.S.C. 119(e) based on provisional application sl.no. **60/222241** filed on **08/01/2000** is acknowledged.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. ***Claims 1-13, 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Embutsu et al. [hereafter Embutsu], US Patent No. 5960402 published on 28 Sept 1999 in view of Hoshino et al. [hereafter Hoshino] US Patent No. 6073062 published on 6 June 2000***

11. As to Claim 1, Embutsu teaches a system which including 'providing a device with data associated with destinations on the waste route' [see Abstract], Embutsu specifically directed to information management which deals with waste of each depository and a device for collecting waste collection information also see fig 1,

'repeating, for each of the destinations on the waste route' [col 5, line 32-52], Embutsu specifically teaches for example transporting discarded material, such as electric appliances to stockyard fig 1, element 90, further in case the retailers and waste collecting agents provide transportation such as trucks for transporting discarded home electric appliances to the stockyard as detailed in col 5, line 45-48,

'traveling to a destination on the waste route' [col 5, line 45-52, col 8, line 10-18],
'waste collected for the destination on the waste route' [see col 5, line 45-52],
destination corresponds to stockyard from retailers who collects discarded home electric
appliances as detailed in col 5, line 32-35.

'analyzing at least one aspect of the electronically recorded data in order to
determine profitability of waste collection for at least one of the destinations of the waste
route' [col 2, line 60-67, col 3, line 1-2, col 3, line 3-6, col 6, line 55-65], Embutsu
specifically teaches information related to "waste collection and disposal", particularly,
such information is stored in a database for example waste collection, waste demanded
quantity of recycling products, and "kind and quantity of waste to be collected" is part of
the analyzing waste collection as detailed in col 2, line 60-67, col 3, line 1-2, further,
Embutsu suggests each waste collecting agent determines specific data item[s], data of
demand volume, and market price of the products [col 6, line 61-67] that corresponds to
data related to profitability of waste collection.

It is however, noted that Embutsu does not specifically teach 'electronically
recording an arrival, electronically recording a departure time. On the other hand,
Hoshino teaches a system which including 'electronically recording an arrival,
electronically recording a departure time' [see fig 33, col 32, line 51-67], specifically
Hoshino disclosed arriving/leaving management table.

It would have been obvious one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Hoshino et al. into information management dealing with waste and waste recycle planning system of Embutsu because Embutsu is directed to waste collection method based on the information and process volume of a recycling, specifically determining amount of waste to be collected and transported from retailers to the stockyard as detailed in col 2, line 54-67, while Hoshino directed to accurate information gathering regarding work performed by a driver or a crew in the moving vehicle [see Abstract].

One of the ordinary skill in the art at the time of applicant's invention to modify Embutsu's fig 1 to incorporate Hoshino's fig 33, more specifically arriving/leaving management table as detailed in the field office of Hoshino because that would have allowed users of Embutsu to record not only exact arrival/leaving time of the vehicle, but also exact position of the vehicle and speed of the vehicle, thus improving the reliability and quality of waste management system.

12. As to Claim 2, Hoshino teaches a system which including 'device is a handheld personal information device' [col 4, line 56-62, fig 3, more specifically personal information device corresponds to mobile device].

13. As to Claim 3, Hoshino teaches a system which including 'data associated with destinations includes address for the destinations' [see fig 13].

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14. As to Claim 4-5, 7-8, Hoshino teaches a system which including 'electronically recording an arrival time is performed by an operator' [col 32, line 51-67, see fig 33, especially arrival/leaving management table, also see fig 34A].

15. As to Claim 6, Embutsu teaches a system which including 'providing an operator with an expected amount of waste for the destination' [col 1, line 50-61],

'receiving an input by the operator indicating whether the amount of waste equals the expected amount of waste for the destination' [col 2, line 44-53, col 6, line 66-67, col 7, line 1-5],

'recording an input by an operator indicating whether the amount of waste equals the expected amount of waste for the destination' [col 7, line 13-23].

16. As to Claim 9, Hoshino teaches a system which including 'electronically recording pictorial information for the destination' [see fig 21-22].

17. As to Claim 10, Hoshino teaches a system which including 'generating the data associated with destination' [see fig 23A-23B, col 22, line 47-67]. On the other hand, Embutsu teaches waste route' [see Abstract].

18. As to Claim 11, Embutsu disclosed 'analyzing at least one aspect of the electronically recorded data in order to determine profitability of waste collection for at least one of the destinations of the waste route' [col 2, line 60-67, col 3, line 1-2, col 3, line 3-6, col 6, line 55-65], Embutsu specifically teaches information related to "waste

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collection and disposal", particularly, such information is stored in a database for example waste collection, waste demanded quantity of recycling products, and "kind and quantity of waste to be collected" is part of the analyzing waste collection as detailed in col 2, line 60-67, col 3, line 1-2, further, Embutsu suggests each waste collecting agent determines specific data item[s], data of demand volume, and market price of the products [col 6, line 61-67] that corresponds to data related to profitability of waste collection. On the other hand, Hoshino disclosed analyzing at least one of time at a specific destination, time between destinations, and travel time to dispose of the waste collected at a specific destination '[col 21, line 46-67, col 22, line 1-16].

19. As to Claim 12, Embutsu teaches a system which including 'analyzing costs of collecting waste for each destination' [col 7, line 54-67, col 8, line 1-3].

20. As to Claim 13, Embutsu teaches a system which including 'providing a device with data associated with destinations on the waste route' [see Abstract], Embutsu specifically directed to information management which deals with waste of each depository and a device for collecting waste collection information also see fig 1,

'repeating, for each of the destinations on the waste route' [col 5, line 32-52], Embutsu specifically teaches for example transporting discarded material, such as electric appliances to stockyard fig 1, element 90, further in case the retailers and waste collecting agents provide transportation such as trucks for transporting discarded home electric appliances to the stockyard as detailed in col 5, line 45-48,

'traveling to a destination on the waste route' [col 5, line 45-52, col 8, line 10-18],
'waste collected for the destination on the waste route' [see col 5, line 45-52],
destination corresponds to stockyard from retailers who collects discarded home electric
appliances as detailed in col 5, line 32-35.

It is however, noted that Embutsu does not specifically teach 'electronically
recording an arrival, electronically recording a departure time. On the other hand,
Hoshino teaches a system which including 'electronically recording an arrival,
electronically recording a departure time' [see fig 33, col 32, line 51-67], specifically
Hoshino disclosed arriving/leaving management table.

It would have been obvious one of the ordinary skill in the art at the time of
applicant's invention to incorporate the teachings of Hoshino et al. into information
management dealing with waste and waste recycle planning system of Embutsu
because Embutsu is directed to waste collection method based on the information and
process volume of a recycling, specifically determining amount of waste to be collected
and transported from retailers to the stockyard as detailed in col 2, line 54-67, while
Hoshino directed to accurate information gathering regarding work performed by a
driver or a crew in the moving vehicle [see Abstract].

One of the ordinary skill in the art at the time of applicant's invention to modify
Embutsu's fig 1 to incorporate Hoshino's fig 33, more specifically arriving/leaving
management table as detailed in the field office of Hoshino because that would have

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allowed users of Embutsu to record not only exact arrival/leaving time of the vehicle, but also exact position of the vehicle and speed of the vehicle, thus improving the reliability and quality of waste management system.

21. As to claim 18, 21-22, Embutsu disclosed 'analyzing at least one aspect of the electronically recorded data in order to determine profitability of waste collection [col 2, line 60-67, col 3, line 1-2, col 3, line 3-6, col 6, line 55-65], Embutsu specifically teaches information related to "waste collection and disposal", particularly, such information is stored in a database for example waste collection, waste demanded quantity of recycling products, and "kind and quantity of waste to be collected" is part of the analyzing waste collection as detailed in col 2, line 60-67, col 3, line 1-2, further, Embutsu suggests each waste collecting agent determines specific data item[s], data of demand volume, and market price of the products [col 6, line 61-67] that corresponds to data related to profitability of waste collection, 'determine a total cost for the waste collected at the specific destination' [col 8, line 12-18], Embutsu specifically teaches multiple routes for the collection of waste that calculates lowest cost of collection as detailed in col 8, line 12-18. On the other hand, Hoshino disclosed 'analyzing each of time at the specific destination, time between destinations, and travel time' [col 12, line 43-51].

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22. As to claim 19, Embutsu disclosed 'analyzing in order to determine profitability comprises analyzing costs for time spent at each destination on the waste route' [col 8, line 27-38].

23. As to claim 20,23, Embutsu disclosed 'summing the amounts of the waste collected at each destination at the route' [col 3, line 21-36], Embutsu specifically teaches waste management information that collects information of waste collection area, waste generation , quantity of waste in small areas, residents, industrial area and commercial area;

'determining a disposal cost per yardage of waste collection based on the amounts of waste collected at each destination of the route and the time spent disposing of the waste' [col 5, line 36-40];

'determining a cost for the specific destination for travel time spent disposing of the waste based on yardage of the waste collected at the specific destination and the cost per yardage of waste' [col 5, line 36-40, line 56-58]

Response to Arguments

24. Applicant's arguments filed on 3/10/2006 with respect to claims 1-13,18-23 have been fully considered but they are not persuasive, for examiner's response, see discussion below:

a) At page 9, claims 1-13,18-23, applicant argues that the present invention as claimed is directed to a method and apparatus for electronically recording data for a waste route, and analyzing the electronically recorded data for profitability of the waste route. In waste hauling, it is typical for a waste hauler to lose 5% to 25% of potential gross profit in operational inefficiencies.....Applicant strongly contends that the cited references do not render the claims obvious, either alone or in combination. As an initial matter, neither cited reference includes any disclosure, let alone any analysis, of the costs or profitability analysis as presently claimed.

As to the above argument, examiner disagrees with the applicant because firstly, Embutsu is directed to waste management, more specifically managing information and waste collection [see Abstract], secondly, Embutsu teaches quantity of waste collection volume, and products of certain kinds that including stock volume, collection area, waste depositories and expenditure [col 3, line 3-6] is part of the waste management to increase the efficiency of waste collection and considerably reducing the waste collection time [col 3, line 7-10]. Thirdly, Embutsu specifically teaches in the information

collection/management, sale or collection data is related to waste entered for further Embutsu also teaches sale or collection data stored in a database for as waste collection information used in analysis of the demand volume and market price of recycling products as detailed in col 6, line 61-67. It is also noted that Embutsu specifically teaches multiple routes and multiple collection targets and transporting more efficiently and lowest cost using the model expression as detailed in col 8, line 12-20.

Hoshino is directed to operating conditions of vehicles record management that accurately records the information particularly, work performed by a driver or crew in the moving vehicle [see Abstract, fig 4], Hoshino also teaches vehicle database, driver database communicating with control unit and transmits to the mobile or remote terminal, further driver database information containing about driver's profile, date, time of work and vehicle ID information [see fig 7], also Hoshimo teaches explam of daily report that including driver's name, vehicle ID, see fig 32.

It is however, noted that Embutsu does not teach electronically recording arrival, departure time On the other hand, Hoshimo disclosed electronically recording arrival, departure time [see fig 33, col 32, line 51-67]. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Hoshino et al. into information management dealing with waste and waste recycle planning system of Embutsu because Embutsu is directed to waste collection method based on the information and process volume of a recycling, specifically determining amount of waste to be collected and transported from retailers to the

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stockyard as detailed in col 2, line 54-67, while Hoshino directed to accurate information gathering regarding work performed by a driver or a crew in the moving vehicle [see Abstract].

One of the ordinary skill in the art at the time of applicant's invention to modify Embutsu's fig 1 to incorporate Hoshino's fig 33, more specifically arriving/leaving management table as detailed in the field office of Hoshino because that would have allowed users of Embutsu to record not only exact arrival/leaving time of the vehicle, but also exact position of the vehicle and speed of the vehicle, thus improving the reliability and quality of waste management system.

Conclusion

The prior art made of record

- | | | |
|----|----------------|---------|
| a. | US Patent. No. | 5960402 |
| b. | US Patent No. | 6073062 |


THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

SC
Patent Examiner.
May 15, 2006.


SRIRAMA CHANNAVAJJALA
PRIMARY EXAMINER